h 6 (46 240)

OTPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/813,320

DATE: 04/05/2001 TIME: 12:09:52

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\04052661\1813320.raw

ENTERED

.-11

```
4 -: 110 > APPLICANT: ZHANG, Hongyu et al.
        1200 TITLE OF INVENTION: ISOLATED HUMAN TRANSPORTER PROTEINS,
              NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,
      8
              AND USES THEREOF
     10 <130> FILE REFERENCE: CL001172
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/813,320
C--> 12 <141> CURRENT FILING DATE: 2001-03-21
     12 - 160> NUMBER OF SEQ ID NOS: 4
     14 :170: SOFTWARE: FastSEQ for Windows Version 4 0
     16 -: 210> SEQ ID NO: 1
     17 <211> LENGTH: 2195
     18 <212> TYPE: DNA
     19 - 113> ORGANISM Human
     21 <400> SEQUENCE: 1
     22 autggattgg actooggtgg ggaaagoggg tgtotagaag tggtgotaat gggaagagaa 60
     23 thotggttte aaaagaggat getetgeeae aaagagegge tegegegetg geetgggete 120
     24 tageogagga gagateeegg gagaaeteea gageteeggg ggagegetee teggaagaee 180
     25 gyggecaaca tgentgtgeg cagggggeat gtggeaceae aaaatacatt tetggggace 240
     26 atcattogga aatttgaagg goaaaataaa aaatttatoa ttgoaaatgo cagagtgoag 300
     27 aactgtgeca toatttattg caacgatggg ttetgtgaga tgactggttt etecaggeca 360
     28 gatgteatge aaaageeatg eacetgegae titeteeatg gaceegagae caagaggeat 420
     29 gatattgeee aaaltgeeea ggeattgetg gggteagaag agaggaaagt ggaggteace 480
     30 tactategea aaaatgggte caettttatt tgtaacaete acataattee agtgaaaaae 540
     31 caagagggog tiggetatgat giteateatt aattitigaat atgitgaegga taatgaaaae 600
     32 getgecacce cagagagggt aaacceaata ttaccaatca aaactgtaaa ceggaaattt 660
     33 tttgggttea aatteeetgy tetgagaett eteaettaea gaaageagte ettaceaeaa 720
     34 quagaceceg atgliggtiggt categattea tetaaacaca gtgatgatte agtagecatg 780
     35 angeatttta agtotootae aaaagaaage tgeageeeet etgaageaga tgacacaaaa 840
     36 getttgatae ageccageaa atgiteicee tiggitgaata taleeggaee teitgaeeat 900
     37 tectotocca alaggoaaty gyacogaeto taccotyaca tyotycayto alagttoccay 960
     38 cligitoccatt ocagatoaag ggaaagotta tigtagtatao ggagagoato titoggitocat 1020
     39 gatatagaag gatteggegt ecaececaag aacatattta gagacegaca tgecagegaa 1080
     40 queaatggte geaatgteaa agttteaegt teetggatgg eaggggggee tittaateat 1140
     41 alcaagleaa geeleetggg alceacalea galleaaaee teaacaaata cagcaccalt 1200
     42 aucaagantic cacagoticae totgaantitt toagaggtica aaactigagaa aaagaattica 1260
     45 fracefeeft etteagataa aaccaffatt geacecaagg ttaaagateg aacacacaat 1320
     44 gigactgaga aagigaccca ggitteiriet illaggagcag algicriace igaatacaaa 1380
     45 etgeagacan caegnaticaa naagtttaeg atattgeact acagenettt caaggeagtn 1440
     46 taggaetage tralectaget attagreata tacaetageta tattractee craeteraca 1500
     47 geotteetee teaatgacag agaagaacag aaaagacgag aatgtggeta ftettgtage 1560
     48 cetttgaatg tggtagaett gattgtggat attatgttta teatagatat titaataaac 1620
     49 ticagaacaa catatgtaaa toagaatgaa gaagtggtaa gigatooogo caaaatagoa 1680
     50 atacactact tcaaaggetg gitteetgatt gacatggitg cagcaattee tittigactig 1740
     51 etgattittg gateaggtte tgatgaggta agaactgett aagattetta tilletgaaa 1800
     52 gattgeaatt ataasagtga stotattila acigoaaaaa gaagsgttge tittgeaaget 1860
```

ment suggested the control of the co

the second of the second of the second

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/813,320

DATE: 04/05/2001 TIME: 12:09:52

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\04052001\1813320.raw

55 attetttade caccaaatta aacttggaaa caagtggtee atagcadaca gcacatteed 2040 56 aggatttaaa atototaott attaaottoa ogggtgtaaa aototoaaat attaagtatg 2100 57 tototgitti tottaaotoa tigitaaggg titgagacag cagagatitig gittititigi 2160 58 teaaattatt*gtgaagaggg ceeeetttee gaaat 60 (210) SEQ ID NO: 2 61 -: 211: LENGTH: 530 62 -(212) - TYPE: PET 63 -: 213 > ORGANISM: Human 65 -: 400> SEQUENCE: 2 66 Met Pro Val Arg Arg Gly His Val Ala Pro Gln Asn Thr Phe Leu Gly 67 1 5 68 Thr Ile Ile Arg Lys Phe Glu Gly Gln Asn Lys Lys Phe Ile Ile Ala 69 20 70 Asn Ala Arg Val Gln Asn Cys Ala The The Tyr Cys Asn Asp Gly Phe 40 72 Cys Glu Met Thr Gly Phe Ser Arg Pro Asp Val Met Gln Lys Pro Cys 55 60 74 Thr Cys Asp Phe Leu His Gly Pro Glu Thr Lys Arg His Asp Ile Ala 75 65 7.0 75 76 Gln Ile Ala Gln Ala Leu Leu Gly Ser Glu Glu Arg Lys Val Glu Val 85 90 78 Thr Tyr Tyr His Lys Asn Gly Ser Thr Phe Ile Cys Asn Thr His Ile 100 110 105 80 Ile Pro Val Lys Asn Gln Glu Gly Val Ala Met Met Phe Ile Ile Asn 81 115 120 82 Phe Glu Tyr Val Thr Asp Asn Glu Asn Ala Ala Thr Pro Glu Arg Val 83 130 140 135 84 Asn Pro Ile Leu Pro Ile Lys Thr Val Asn Arg Lys Phe Phe Gly Phe 150 155 86 Lys Phe Pro Gly Leu Arg Leu Leu Thr Tyr Arg Lys Gln Ser Leu Pro 87 165 170 175 88 Gln Glu Asp Pro Asp Val Val Ile Asp Ser Ser Lys His Ser Asp 1.80 185 190 90 Asp Ser Val Ala Met Lys His Phe Lys Ser Pro Thr Lys Glu Ser Cys 195 200 92 Ser Pro Ser Glu Ala Asp Asp Thr Lys Ala Leu Ile Gln Pro Ser Lys 93 210 220 215 94 Cys Ser Pro Leu Val Asn Ile Ser Gly Pro Leu Asp His Ser Ser Pro 230 235 40 Lys Ard Gln Trp Asp Arg Leu Tyr Pro Asp Met Leu Gln Ser Ser Ser 250 255 245 93 Gln Lou Ser His Ser Arg Ser Arg G.u Ser Lou Cys Ser Ile Arg Arg 9.4 260 265 100 Ala Ser Ser Val His Asp Ile Glu Gly Phe Gly Val His Pro Lys Asn 101 275 285 280102 Ile Phe Arg Asp Arg His Ala Ser Glu Asp Asn Gly Arg Asn Val Lys 103 290 295 300 104 Val Ser Arg Ser Trp Met Ala Gly Gly Pro Phe Asn His Ile Lys Ser 105 305 310 315

RAW SEQUENCE LISTING PATENT APPLICATION: US/09/813,320

DATE 04/05/2001 TIME 12:09:52

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\04052001\1813320.raw

106 Ser Leu Leu Gly Ser Thr Ser Asp Ser Asn Leu Asn Lys Tyr Ser Thr • 325 330 108 Ile Asn Lys Ile Pro Gln Leu Thr Leu Asn Phe Ser Glu Val Lys Thr 109 340 345 350 110 Glu Lys Lys Asn Ser Ser Pro Pro Ser Ser Asp Lys Thr Ile Ile Ala 111 355 360 365 112 Pro Lys Val Lys Asp Arg Thr His Asn Val Thr Glu Lys Val Thr Gln 375 370 380 114 Val Leu Ser Leu Gly Ala Asp Val Leu Pro Glu Tyr Lys Leu Gln Thr 115 385 390 395 116 Pro Arg Ile Asn Lys Phe Thr Ile Leu His Tyr Ser Pro Phe Lys Ala 405 410 415 118 Val Trp Asp Trp Leu Ile Leu Leu Val Ile Tyr Thr Ala Ile Phe 119 4.20 425 430 120 Thr Pro Tyr Ser Ala Ala Phe Leu Leu Asn Asp Arg Glu Glu Gln Lys 121 435 440 445 122 Arg Arg Glu Cys Gly Tyr Ser Cys Ser Pro Leu Asn Val Val Asp Leu 450 455 124 Ile Val Asp Ile Met Phe Ile Ile Asp Ile Leu Ile Asn Phe Arg Thr 135 465 470 475 126 Thr Tyr Val Asn Gln Asn Glu Glu Val Val Ser Asp Pro Ala Lys Ile 485 490 128 Ala Ile His Tyr Phe Lys Gly Trp Phe Leu Ile Asp Met Val Ala Ala 129 500 505 510 130 Ile Pro Phe Asp Leu Leu Ile Phe Gly Ser Gly Ser Asp Glu Val Arg 131 515 520 525 132 Thr Ala 1 + 3530**^** 136 <210> SEQ ID NO: 3 137 <211> LENGTH: 397658 138 <212> TYPE: DNA 139 <2130 ORGANISM: Human 141 -: 220: FEATURE: 142 <221> NAME/KEY: misc_feature 143 <222> LOCATION: (1)...(397658) 144 <223> OTHER INFORMATION: n = A, T, C or G 146 <400> SEQUENCE: 3 147 etagaagage etagaggttt teattggetg ettaetttta aagtaaaeet tattageeat 60 148 aaaatteaac attectagga acgtetteeg titigatteat titeattact eigatattaa 120 149 agaggaagaa ttacttoggt tottgatttt gtttagattt gggggggttgf ggttttggaa 180 100 catabaagtt gitatgetta etteetggit attgebaece acetgattea cetteetaaa 240 I'd c'aaccotge floteggees floteagtte factoleaff affleactte agattigaag 300 $\Gamma \oplus \sigma^*$ gtaactga gaaaataaga acccagetga eteaaggeae aggetaatg
ag 360 163 etgeaagaac eecceaaat tetateatge aactgeatgt gittgacagga atetetggac 420 154 etttatetee ageaggaaat gagagattea tetgtgttet gettgagtag attgaaatet 480 155 tageaaatte catttagaga aaggggegtg gagagggget attaggttea agggggtggg 540 156 teggegggaag atawcaaaaa tegaagggaaa agaaccaaga aaaactagaa aaacagcttc 600 157 aaaaacacge titeetiggea eagettigtea eattitatiit eetaagteie eaggaggaet 660

158 atttgaacag aagtgleigt ataceetgag atteecacge iggeageett iggaaagega 720

file: Control 1813320.htm

RAW SEQUENCE LISTING

DATE: 04/05/2001 PATENT APPLICATION: US/09/813,320 TIME: 12:09:52

Input Set : A:\Seglist.txt

Output Set: N:\CRF3\04052001\1813320.raw

159 gaaggaagag gactotatto ogoocottga accottttot atootatatg agatggotoo 780 160 ttagagatgg tggaggagag cagaatgtgg ctagtgtgtt ccqqagatga gtggcatcgg 840 161 aggteacage caaggetggt aactettage eccacceace tittgtteet teeccetgge 900 16.2 geteageete acetatttea aactetttee tiettitigia etagtegete geaatettig 960 163 geotteteat ettiggeegt eteatettee tegeageeta eggeacetgg agaeeaaate 1020 164 aacceccaat ettgeaacce teeagggast eaggeagaaa etgggeatge teageggeae 1080 165 gggeagettt eagtetttee egaggegegg eteagegetg ggeagggaee tgegtgeeaa 1140 166 threagthing gettingcan characterist types the strength of the strength 167 gotaaatotg caccottagg tggtteattg teaatettea acctgetgag egecaacaga 1260 168 gottacaaat attoctoatt aagaaactgt tittoccacct gigittitoot igcagotaag 1320 169 ggtgetttag etactgegge gtgaggaget eagggaegga gedetgtgge eggtggeegt 1380 170 agagateace theceagagt agetgittigt caetgagitt tiggagattic tiggetiget 1440 171 teegetaaag caegettgag taateegage tgtggeggeg cecaagetae caagataaag 1500 172 agagogtigtig tigtigtigtigt tigtigtigtigt figtigtigtigt i grigtigtigt i grigtigtigt 1560 W--> 173 agggggagag ggcggggata gaaacagcaa cnnnnnnnnn nnnnnnnnn nnnnnnnnn 1620 W--> 174 nnnnnnnnn nnnnnnnnn ngtqtagcgg gagagggcgg gaatagaacc ntcaaccccc 1680 W--> 175 gengaceece ageteeettt tetetetete etteeageaa aaceggeaca agtetteeat 1740 176 decededcag coatteetta etgetetggg caacegecag gttaageeca tttgcaetgg 1800177 gaaat#ggeg etgtttggga gaagagaaac agategattg coettgtgac teecegeece 1860 178 etteccace caceccaca getecctece tetttecete cecegocace tecceteace 1920 179 eegecteett eeegtteeee acceecaaac eeteteacee geggeagtee ggtgegagge 1980 180 cccctccgga aggtgagggg aatggattgg actccggtgg ggaaagcggg tgtctagaag 2040 181 tggtgctaat gggaagagaa ttctggtttc aaaagaggat gctctgccac aaagageggc 2100 182 tegegegetg geetgggete tageegagga gagateeeeg ggagaaetee agagetteeg 2160 183 ggggageget actoggaaga eeggggeeaa catgeetgtg egcaggggge atgtggeace 2220 184 acaaaataca tttotgggga coatcattog gaaatttgaa gggcaaagta agttogtttg 2280 185 thetettete tegecetege thretgeeth ghtagtgeac htggegteea eegetheeaa 2340 186 ggtggggaga coggcaacte caggetetgt caacttaaga ggetgtgaaa cogagecagg 2400 187 aggttegaat ggeageggga gtgttettet gatattaatt ttgatttaea titttagatta 2460 188 eggtetecat tataggagge aatttgatee teetetacea etgetecatt atetgeettg 2520 189 ctacttaatt teetactatt etactatett aaagggaacg tgetaggata acatgggttt 2580 190 atattttgag getgttttae tgtagaettt etgaaagteg gaageagage agaeeataet 2640 191 attegaacaa gagaatgtaa atggtagtag egatgtaaat gactatgcaa actatatttt 2700 192 accitigatta aactigaaaag cagtigatatig acaciggatigo titgattigata titaattitata 2760 193 gaagetaaat titigtattiga ateaatgeaa atatateeta ageagggtaa titiggaaaag 2820 194 cagtatetea tetgtgetgg ttecegatge aaatggetea ttatteaaaa taatatttet 2880 195 attettttat tateeeetta aaattteeat etagaaattt aaaaattgaa gtgtaataag 2940 196 taaatoocac aaagactgaa tqoacagaaa titaatgtto toatgtggac taaatatagg 3000 197 gaataaatig tigetatata aatalaitaa titaaaatee tgiattigit aacitateit 3060 198 eggtetitre ttaaaactat attaafacat itgtatgeea talattitge ggtlattitea 5120 199 geaetgeatt tagtgatgtg aggatetggt accttgegta caaactaaac ttgtatatee 3180 200 tgetteagaa telatgigga aalaglaaat acaatetgig algiaaatta alaagetett 5340 201 tahattaaga atteetgeta etacagaaaa etteaaggat eheccaaagt aaaagtaaaa 3300 202 aggittgheat gataittaet gigtgigtgi aaatafiitt ettilgggaa atalatatta ± 600 203 tgaaaatgtg aatotttgoo tigttgaatt gotattaaat atgaagtagt ticattacta 3420 204 aagetayttig eettigittit taacaligatig tigtigtaacat geefaagaga gatagggaga 3480 205 agccaaagaa taataactae titgagaaag tigtattcaa agggccaagg tigaaatgag 3540 206 aaatotgaca actacagaat gitticactgi tigactitga aaatattiac attacaatta 3600 207 aatgacatte tgaaaatate aatgggeage tgettgtetg agtgteeaet aggaaceeee 3660

RAW SEQUENCE LISTING

DATE: 04/05/2001 PATENT APPLICATION: US/09/813,320 TIME: 12:09:52

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\04052001\I813320.raw

208 geagttgeag ggettgagaa etagtetatt tgggaaatte tattettgea attttaagag 3720 2009 tggtttetta ataetttetg ttaaaattae ttaggateat taateteaca tttaaagttt 3780 210 qtqqqqtttc ttqtqttttc ttttttcata aqqqctqqaq aqattaqtaa tttqqqqaqq 3840 Ill caccingcatt teagagetet tattatgeaa caaattgett eagigttaeg gagaatatig 3900 21.1 tggaageritt ticaaagatg ceatactgte tiettattae agataaaaaa titateattg 3960 214 caaatgeeag agtgeagaac tgtgeeatea tttattgeaa egatgggtte tgtgagatga 4020 ± 14 etggtttote caggecagat gteatgeaaa agecatgeae etgegaettt etecatggae 4080 ± 15 cogagaccaa gaggeatgat attgeecaaa ttgeecaage attgetgggg teagaagaga ± 140 216 qqaaaqtqqa qqtcacctac tatcacaaaa atqqtaaaat toototattt aqqattoott 4200 217 etatttgate eeattgaaaa gaaattttga etattaaaaag tteatatgea aagaageeca 4260 ± 18 aaatgiteaa tigtagatat atgettigea tatagtatit tigggaleeaa eatatatigigi 4320219 tattotgatt agtggtotgg tagaaacaat titttottig aataagggta otgtaatoto 4380 230 ttoaaaagta caqtaacata atgtoactga qqttaaaatg otacaaatca qtottagatg 4440 221 stootttott taaggaatta gagaaagatg aasaatgtas tgottgeatt ggtatgeatt 4500 -322 tygtaggoga qaaatacaga tacagtgtta ettgtttgaa etttaaaaata etecacaaag 4560 223 caaatttatg ttgaaaacta tatetaaaac taaaactatt acagttatgt etettggete 4620 224 tittagetita gitgatagge aacacetett gittettitig etectietta eaacattaag 4680 225 gatgataaat aggaactttt accttgatee agttaacetg tgeatattea aacaataaag 4740 226 getgtttatg tagteaagat ttgteetgaa ataagaaatg tagaaaaaat tatgatactg 4800 227 tggagttatt agtattgatt tttataacta cagcaaatet ggcatettaa acttaaggte 4860 228 ataceteaae ttegagggea acaeeteetg teaaaettge tatgagagee gtaagagtta 4920 229 gacataatag tictettaaa aaattacaca tgtaatagat aggcatgcct taaatacaca 4980 230 atatatatgi aaatgaacto acatatataa atactoagat atgoccatti taaggigtat 5040 231 atatagatat atatteetga atatetataa atetatatet atatatet atatatetat 5100 ± 32 acaaaatgat atttgtctag ggcttaaagg taaaattact ttaaaaaatt gaatgttata 5160233 gttaattttg ttgatattte ateateatet atttettttt atteeactaa eagaaattae 5220 234 tgaggeagag gggtagetgt teagattttt agaaaaetet taagettttg ataaatatgt 5280235 agtgtgccat agcctatate atataatgae teateatttg gtataetaga gagaaaaaaa 5340 236 gacageagga aaaaggttte agtettacte ttatttett ataatteaat gtacaatgta 5400237 caattettaa ttactacatt tteettaaca tgaagttgag tggttacaaa acattactaa 5460 238 aaacaggttt gtataacttt gtagtaatct ggaatgaaag caatagtata cgtatcaaac 5520 239 agatagaaat tgtttttaaa gttetteeea tgtttetett aetttteaat eagtagtgtt 5580 .40 ggcatactag aaatagccta attgttctgt tgtcttgaaa acatttattg gattgagctc 5640 241 teactaceea aatgtaacte atgtettttg agtatetgat geeaaeaate tggaegtttg 5700 242 gaataattig aatgictgac attitities tattgaatat tiattatgat gocaacacag 5760 243 totalattgt ggtaacttca gtgaatgttg gtccatcttt ggtcattatg tittctagac 5820 ± 44 cattteaggg attttteeaa eteatagaat ttaagtatga eattaatetg gattgeeeaa 5880.4% attgotoaaa taetaggtat atettteaga gtgtttfeaa gtaggagtta tefattaeae 5940 .46 egcaagtgge gigalgatgt tilgaaagit gigeaalgig ggtgtgtaaa algateteaa 6000 247 aacactitaa aacaaattta afaagaafca cagafafgat taatteetat faaattatig 6060 .48 aattiletgi aligaaqata tiagtafafi qacaaataca aatetiicta liitgaaggat 6130 .49 fittetiggit afatgeatta aaacteeeet gitticagaa agggaettit galiftagagg 6.30 .50 attgfffggg talaaagaaa flaacciffa gtaaaaalff fgaffctgff gacffcafff 6240 ..'il teagatgtaa eteagtette aaggatttga atatetttag egitaaetat aaaatetaee 6300 252 tattitigett taatigatat ggaaaacaig agaaaatggg teaageatti tettittati. 6360253 taatatttta agaaatatat tägtttyäät gaeettitta aaeagtyäty aeaeagteat 6420 254 acttqtttgc titigaaagta afaaacttgt gttttggctg ctagttcaga faacttggat 6480 .55 agaatettea gigigiettig giittatita taigacaaci acaaaateag iiagagetta 6540 256 tgagatacaa attettggat agteteatet ettagagata agaetaetge cagetaetet 6600

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/813,320

DATE: 04/05/2001 TIME: 12:09:53

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\04052001\1813320.raw

L 12 M 270 C: Current Application Number differs, Replaced Current Application No I, 12 M 271 C: Current Filing Date differs, Replaced Current Filing Date L 173 M 341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:3051 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:3052 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L 4139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4848 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4849 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4850 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4851 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L.4852 M:341 W. (46) "n" or "Xaa" used, for SEQ ID#:3 L:4853 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L 4854 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4855 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 $L\!:\!4856$ M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4857 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4860 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4861 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4864 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 $L\!:\!4865$ M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:4866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3